

PROJECT DESCRIPTION

GENERAL

This project involves the installation of a temporary traffic control signal with intersection street lighting at the intersection of MD 170 and I-195 off Ramp in Anne Arundel County.

INTERSECTION OPERATION

This intersection is proposed to operate in a fully actuated mode with MD 170 northbound and southbound operating concurrently. I-195 off Ramp will operate in an exclusive phase.

A NEMA (3 phase) fully actuated controller housed in a base mounted cabinet with two- 4 channel rack mounted loop detector amplifiers shall be installed at this location.

SPECIAL NOTES

1. The following contact persons for District #5 are as follows:

Mr. Paul D. Armstrong, District Engineer  
Phone: (410) 841-1000  
Mr. Lawrence E. Elliott, Assistant District Engineer-Traffic  
Phone: (410) 841-1000  
Mr. Chuck E. George, Assistant District Engineer-Maintenance  
Phone: (410) 841-1000  
Mr. John S. Mays, Assistant District Engineer-Utility  
Phone: (410) 841-1000  
Mr. Richard L. Daff, Sr., Chief Traffic Operations Division  
Phone: (410) 787-7630

2. Maintenance of traffic will be handled by the Contractor utilizing the following standard plates for traffic control: 105.00, 105.01, 105.02, 105.3, 105.101, 105.103, 105.105, 105.107, 105.109

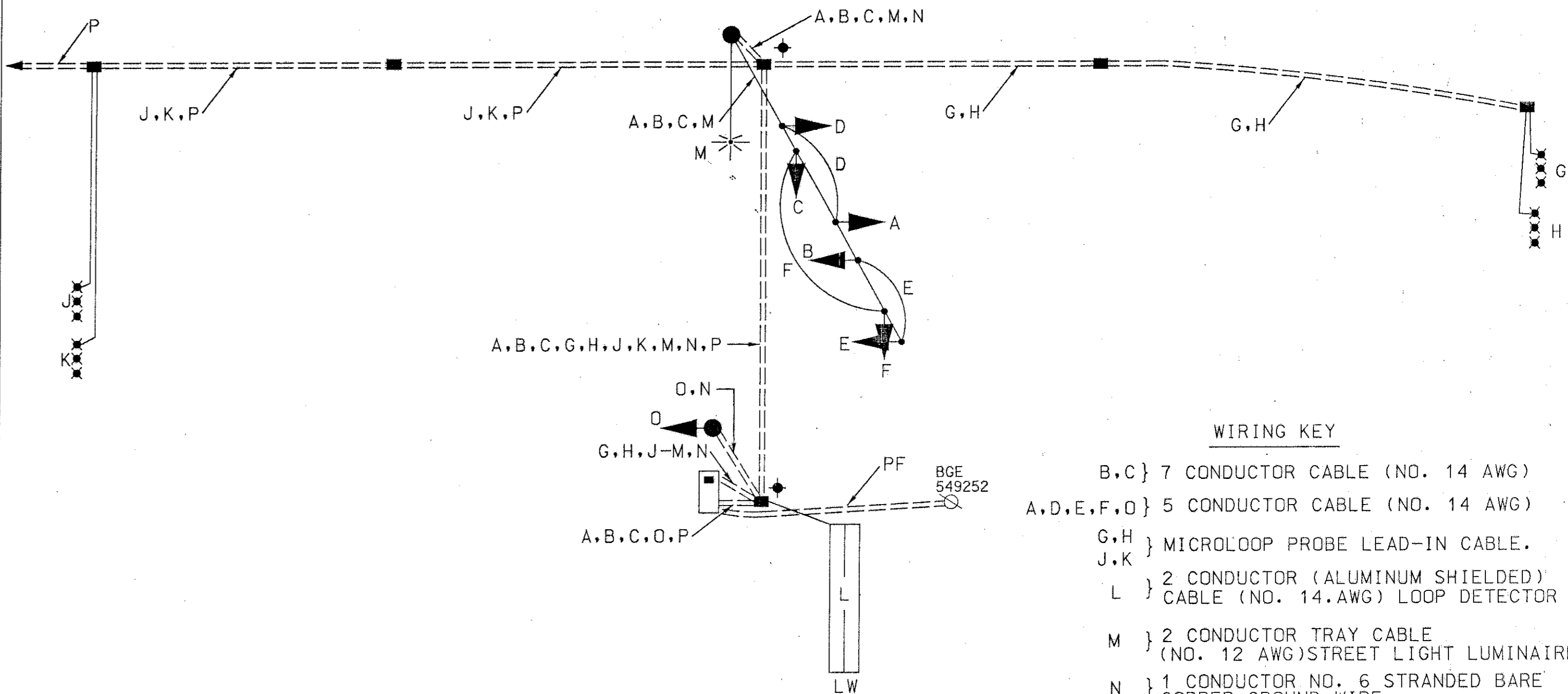
A. Equipment to be supplied by MD-SHA.

Item No.	Quantity	Unit	Specification Section	Description
971017	1		816	Eight phase (fully actuated) controller and cabinet - base mount
900000	2		817	Four channel rack mounted loop detector amplifier (delay output)
973023	49.5		813	Sheet aluminum signs consisting of: 1 EA R3 - 1 (30" x 30") 3 EA W3 - 3 (36" x 36") 1 EA R3 - 2 (30" x 30") 1 EA R5 - 1 (30" x 30")

B. Equipment to be furnished and installed by the Contractor.

Item No.	Quantity	Unit	Specification Section	Description
203030	3	CY	205	Test pit excavation
585445	70	LF	555	Furnish and install 24 in. Temporary white preformed pavement markings
801004	6.0	CY	801	Furnish and install concrete for signal foundation
837001	2	EA	804	Furnish and install ground rod - 3/4 in. diameter x 10 ft.
800000	20	LF	805	Furnish and install 4 in. schedule 80 rigid PVC conduit - trenched
805118	90	LF	805	Furnish and install 3 in. schedule 80 rigid PVC conduit - bored
800000	30	LF	805	Furnish and install 3 in. schedule 80 rigid PVC conduit - trenched
800000	830	LF	805	Furnish and install 2 in. schedule 80 rigid PVC conduit - trenched
800000	60	LF	805	Furnish and install 2 in. schedule 80 rigid PVC conduit - bored
805160	40	LF	805	Furnish and install 1 in. liquid tight flexible non-metallic conduit for detector wire sleeve
831010	1	EA	806	Furnish and install 250-watt high pressure sodium lamp and luminaire with photocell (Full Cutoff)
807205	1	EA	807	Furnish and install Control & Distribution Equipment
802501	120	LF	810	Furnish and install No. 6 AWG standard bare copper ground wire
861104	1500	LF	810	Furnish and install electrical cable - 2 conductor (aluminum shielded)
861107	215	LF	810	Furnish and install electrical cable - 5 conductor (No. 14 AWG)
861108	175	LF	810	Furnish and install electrical cable - 7 conductor (No. 14 AWG)
862101	950	LF	810	Furnish and install loop wire encased in flexible tubing (No. 14 AWG)
861116	120	LF	810	Furnish and install 2-conductor - tray cable (No. 12 AWG)
811001	6	EA	811	Furnish and install electrical handhole
801106	60	EA	812	Furnish and install wooden sign support 4" x 6" drilled
813014	49.5	SF	813	Install ground mounted signs
800000	21	EA	814	Furnish and install 12 in. standard aluminum traffic signal head section
862102	234	LF	815	Furnish and install sawcut for signal
800000	1	EA	818	Furnish and install a 27 ft. steel pole with single 70 ft. mast arm
866103	1	EA	818	Furnish and install 20 ft. lighting arm on signal structure
821003	1	EA	821	Furnish and install breakaway base support system for signal structure
868003	1	EA	821	Furnish and install 10 ft. breakaway pedestal pole
800000	1	LS	SP	Removal and dispose of traffic signal equipment
800000	1	LS	SP	Removal and salvage of traffic signal equipment
800000	1	LS	SP	Delivery and salvage of traffic signal equipment
800000	4	EA	815	Furnish and install microloop probe set with 500 ft. lead-in cable.

WIRING DIAGRAM



PHASE SEQUENCE CHART

	1	2	3	4	5	6	7	
	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	
PHASE 2 AND 6	G	G	G	G	G	R	R	←
2 AND 6 CHANGE	Y	Y	Y	Y	Y	R	R	→
PHASE 4	R	R	R	R	R	G	G	←
4 CHANGE	R	R	R	R	R	Y	Y	→
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	←



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MARYLAND DOT - STATE HIGHWAY ADMINISTRATION  
Office of Traffic & Safety  
TRAFFIC ENGINEERING DESIGN DIVISION  
GENERAL INFORMATION SHEET  
MD 170 AT I-195 SOUTHBOUND  
OFF RAMP

DRAWN BY: JAMES ALLEN JR.  
CHECKED BY: D. PETERS  
SCALE: 1"=20'  
DATE: MAY 12, 2000

F.A.P. NO.  
S.H.A. NO.  
COUNTY: ANNE ARUNDEL  
LOG MILE: 02017007.57

TS NO.  
4033  
T.I.M.S. NO.  
E 204

SHEET NO.  
OF